November 4, 1946.

Dear Dr. van Niel,

Your numerous trips across the country have not, I hope, so wearied you that to receive this correspondence is an additional burden. At the Tatum's you suggested that I write to you in connection with 'transformation-like' phenomena. I am enclosing the biøbliography for the typescript of the paper by Ed and me, of which the following references are along the lines which I hope your biøbliographic collections may relevantly add to:

Avery et al 1944
Boivin et al 1944, 1945
Burnet 1925
Canatcuzene and Boinciu 1926
Frobisher and Brown 1927
Griffith 1928
Hansen 1929
Holtman 1939
Legroux and Genvray 1933
Wollman and Wollman 1925

Each of these references suggests an instance of the chemical transfer of a hereditary character, similar to the pneumococcus transformation, but they would require careful reexamination. I would be very much interested to learn of any other work where a heritable character of a bacterium was modified by the presence of another microorganisms or its products (barring cases of clearcut random variation and selection.)

Nothing very exciting has happened since you were here; the experiment using three double mutants (B-T-L , B T-L-, B-T L-) together yielded no prototrophs, which as outlined previously is evidence against transforming factors operating in the E. coli system. It seemed desirable to study the inheritance of sugar fermentation characters; after very heavy ultra-violet irrdiation, a single lactose-negative colony was found among 20,000 tested, and it turned out to have the same nutritional characteristics as the irradiated strain, so it probably is a mutant; its study should be most interesting.

We would appreciate very much hearing your comments on our manuscript. The bibliography now enclosed should, I think, best be held on to, and returned with the rest of the manuscript when you have had time to criticize it.

Very sincerely yours,

Joshua Lederberg